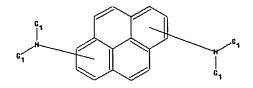
10/743,778 Search History

=> file reg

FILE 'REGISTRY' ENTERED AT 15:58:42 ON 16 APR 2009



chain nodes :

17 18 21 22 23 24

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

chain bonds :

17-23 17-24 18-21 18-22

ring bonds :

1-2 1-6 2-3 3-4 4-5 4-16 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-01 11-12

11-15 12-13 13-14 15-16

exact/norm bonds :

17-23 17-24 18-21 18-22

normalized bonds :

1-2 1-6 2-3 3-4 4-5 4-16 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-01 11-12

11-15 12-13 13-14 15-16

G1:H,Cy,Ak

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 18:CLASS 19:Atom

20:Atom 21:CLASS

22:CLASS 23:CLASS 24:CLASS

STRUCTURE UPLOADED L1



chain nodes :

1 2 3

chain bonds :

1-2 1-3

exact/norm bonds :

1-2 1-3

Match level :

1:Atom 2:Atom 3:Atom

Element Count : Node 1: Limited

C, C10-20

Node 2: Limited

C, C5-20 0,00-2

N, NO-2

Node 3: Limited

C,C5-20

N, NO-2

0,00-2

STRUCTURE UPLOADED L2

=> s l1 sss sam

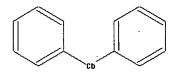
5 SEA SSS SAM L1

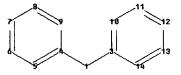
=> s 12 sss sam

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

L4 1 SEA SSS SAM L2





chain nodes :

ring nodes : 3 4 5 6 7 8 9 10 11 12 13 14

chain bonds :

1-3 1-4

ring bonds :

3-10 3-14 4-5 4-9 5-6 6-7 7-8 8-9 10-11 11-12 12-13 13-14

exact bonds :

1-3 1-4

normalized bonds :

3-10 3-14 4-5 4-9 5-6 6-7 7-8 8-9 10-11 11-12 12-13 13-14

Match level:

1:Atom 3:Atom 4:Atom 5:CLASS 6:CLASS 7:Atom 8:Atom 9:Atom 10:Atmo 11:Atom

12:Atom 13:Atom 14:Atom

Element Count : Node 1: Limited

C, C10-20

STRUCTURE UPLOADED L5

=> s 15 sss sam

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

3 SEA SSS SAM L5 ' L6

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 12 22

ring bonds :

1-12 1-8 2-7 2-3 3-4 4-5 5-6 6-7 8-9 9-10 10-11 11-12 13-14 13-18 14-15

15-16 16-17 17-18 17-19 18-22 19-20 20-21 21-22

normalized bonds :

1-12 1-8 2-7 2-3 3-4 4-5 5-6 6-7 .8-9 9-10 10-11 11-12 13-14 13-18 14-15 15-16 16-17 17-18 17-19 18-22 19-20 20-21 21-22

Match level :

1:Atom 2:Atom 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom

21:Atom

22:Atom 23:Atom 24:Atom

L7 STRUCTURE UPLOADED

=> s 17 sss sam

30 SEA SSS SAM L7 L8

=> s l1 sss ful

414 SEA SSS FUL L1

=> s 17 sss ful

L10 13567 SEA SSS FUL L7

=> file hcaplus

=> s 19 and 110

216 L9 7201 L10

35 L9 AND L10 L11

L11 ANSWER 1 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:237269 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER: 150:295121

TITLE: Organic electroluminescent (EL) element with high

> emission efficiency, high brightness, and extmely long service life, its display, panel module, rad

mobile display

Ikari, Kenichi; Suzuki, Koichi; Nakada, Koichi Deno, INVENTOR(S):

Kazunori

Canon Inc., Japan PATENT ASSIGNEE(S):

SOURCE: Jpn. Kokai Tokkyo Koho, 50pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

KIND APPLICATION NO. PATENT NO. DATE DATE _____ ---------------JP 2009043896 Α 20090226 JP 2007-206752 20078008 PRIORITY APPLN. INFO.: JP 2007-206752 20078008

The organic EL element comprises an anode, a cathode, and in betwee, an organic compound layer containing 31 kinds of arylamine polymers I (R1, R2+ H, alkyl, aralkyl, aryl, halo, alkoxy; Ar1, Ar2 = aryl, condensed pobyclic aromatic group; Ar1 or Ar2 = fluorenyl; Ar3 = arylene group composte of 32 benzene rings, divalent condensed polycyclic aromatic group; Ar4 arylene, divalent condensed polycyclic aromatic group; m = 10-200 miteger, n = 0-200 integer). Preferably, the organic compound layer includes hole injection layer (HIL) and a light-emitting layer (LEL), both layersbeing in contact with each other. The arylamine polymers may exist in teh HIL or LEL. The light-emitting layer may be formed by coating method. The display contains plurality of the organic EL elements and their dixie circuits. The panel module contains the display and an interface fo the external equipments. The mobile display is assembled with the dispay.

1044790-88-6, Baytron P-AI 4083 IT 1123310-56-4 1123310-58-6

1123310-60-0 1123310-62-2 1123310-66-6 1123310-68-8 112331-070-2 1123310-74-6 1123310-76-8 1123310-78-0 1123310-72-4 112331-080-4 1123310-82-6 1123310-83-7 1123310-84-8 1123310-85-9 112331-086-0

1123310-92-8 1123310-95-1 1123310-96-2 1123310-97-3

1123310-99-5 1123311-00-1 1123311-01-2 1123311-04-5 1123311-05-6 1123311-06-7 1123310-98-4 1123310-99-5

1123311-03-4

RL: TEM (Technical or engineered material use); USES (Uses)

(hole injection layer; organic EL element containing arylamine chymers with fluorenyl structures)

L11 ANSWER 2 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

DOCUMENT NUMBER: 150:67371

Polycyclic ring assembly compound and blue or meen TITLE:

emitting organic electroluminescent device emplying

the same for backlight of display

INVENTOR(S): Ito, Mitsunori

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

PCT Int. Appl., 77pp. SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

```
DATE
                                           APPLICATION NO.
    PATENT NO.
                        KIND
                        ----
                                -----
                                            WO 2008156052
                                20081224
                                           WO 2008-JP60973
                         A1
                                                                   20086016
        W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BYBZ,
            CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MAMD,
            ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG,PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ,TM,
            TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SISK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                            JP 2007-162666
                                                                A 20076020
    A polycyclic ring assembly compound which has a specific flexible artial
     structure, i.e., a structure comprising an aromatic ring in which dajacent
     carbon atoms have, bonded thereto, an aromatic ring group of anothe kind and
     an aliphatic group or aromatic ring group. Also provided are: a playmer
     constituted of repeating units at least part of which are structure
     derived from the polycyclic ring assembly compound; a solution of ma organic EL
     material comprising the polycyclic ring assembly compound or the playmer;
     and an organic electroluminescent device. The organic electroluminescent device
     has excellent heat resistance, a high color purity, and a long lifand
     can emit a blue light or green light at a high luminescent efficiery.
     The polycyclic ring assembly compound realizes the device.
                               THERE ARE 8 CITED REFERENCES AVAILABLE HO THIS
REFERENCE COUNT:
                               RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
                             693289-38-2
     462631-35-2 663954-33-4
                                             782504-36-3
TТ
     868850-52-6 1093282-93-9 1093282-94-0
     1093282-95-1
     RL: TEM (Technical or engineered material use); USES (Uses)
        (polycyclic ring assembly compound and blue or green emitting oganic
        electroluminescent device employing the same for backlight of deplay)
     100-58-3, Phenylmagnesium bromide 122-78-1, Phenylacetaldehyde
IT
     358-23-6, Trifluoromethane sulfonic acid anhydride 573-97-7,
     1-Bromo-2-naphthol 1564-64-3 4440-01-1 7790-99-0, Iodine chlade
                        73183-34-3
                                      872050-52-7 911390-78-8
     (ICl)
           16239-18-2
     917380-57-5
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (preparation of host material; polycyclic ring assembly compoundand blue or
        green emitting organic electroluminescent device employing the æme for
       backlight of display)
                                62969-97-5P
     7424-72-8P 22082-93-5P
IT
                                             126613-08-9P
                                                             474688-73 P8
     597554-03-5P 607731-70-4P 911390-81-3P 936854-62-5P
     943861-20-9P 949013-30-3P 1093282-81-5P
     1093282-82-6P 1093282-89-3P 1093282-90-6P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) RACT
     (Reactant or reagent)
        (preparation of host material; polycyclic ring assembly compoundand blue or
        green emitting organic electroluminescent device employing the asme for
        backlight of display)
     1093282-77-9P 1093282-78-0P 1093282-79-1P
ΙŢ
     1093282-83-7P 1093282-84-8P 1093282-85-9P
     1093282-86-0P 1093282-87-1P 1093282-88-2P
     1093282-91-7P
     RL: SPN (Synthetic preparation); TEM (Technical or engineered materal
     use); PREP (Preparation); USES (Uses)
        (preparation of host material; polycyclic ring assembly compoundand blue or
        green emitting organic electroluminescent device employing the æme for
```

backlight of display)

```
L11 ANSWER 3 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         DOCUMENT NUMBER:
                         149:521058
TITLE:
                         Diaminopyrene derivative and organic EL devicesing
                         the same
INVENTOR(S):
                         Funahashi, Masakazu
PATENT ASSIGNEE(S):
                         Idemitsu Kosan Co., Ltd., Japan
                         PCT Int. Appl., 117pp.
SOURCE:
                         CODEN: PIXXD2
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
    PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                         ----
                                             ------
                                 -----
     WO 2008136522
                         A1
                                20081113
                                          WO 2008-JP58481
                                                                     20085007
         W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BYBZ,
             CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,ES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MAMD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ,TM,
         TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZMZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                             JP 2007-123215
                                                                 A 20075008
     Disclosed is a diaminopyrene derivative as a luminescent material of organic EL
     devices, which is represented by I [R = C1-20 alkyl, C6-25 aralkyl C3-25
     cycloalkyl, etc.; a = 1-9 integer; A and A' = H, C1-20 alkyl, C5-25aryl,
     etc.; b and c = 1-5 integer, and b + c f 9; X and X' = substituent
     containing at least on of Ge, P, B, and Si; d and e = 0-5 integer and d + 1
     3 1].
REFERENCE COUNT:
                         32
                                THERE ARE 32 CITED REFERENCES AVAILABLE OR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
     1073427-84-5P 1073427-92-5P
     RL: MOA (Modifier or additive use); SPN (Synthetic preparation); TME
     (Technical or engineered material use); PREP (Preparation); USES (性)
        (diaminopyrene derivative for organic EL device)
     1073427-87-8 1073427-90-3 1073427-95-8
IT
     1073427-98-1
     RL: MOA (Modifier or additive use); TEM (Technical or engineered maerial
     use); USES (Uses)
        (diaminopyrene derivative for organic EL device)
IT
     853945-27-4 910894-92-7 1073428-03-1
     RL: TEM (Technical or engineered material use); USES (Uses)
        (host; diaminopyrene derivative for organic EL device)
L11 ANSWER 4 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         2008:1219627 HCAPLUS <<LOGINID::20090416>>
DOCUMENT NUMBER:
                         149:458089
                         Organic electroluminescent device, coating solbion
TITLE:
                         for making organic electroluminescent device ah color
                         display device
INVENTOR(S):
                         Urano, Toshiyoshi; Minakami, Junji; Shimizu, Waru;
                         Nagao, Shigeki; Yabe, Masayoshi; Goromaru, Hidei
PATENT ASSIGNEE(S):
                         Mitsubishi Chemical Corp., Japan
                         Jpn. Kokai Tokkyo Koho, 84pp.
SOURCE:
```

CODEN: JKXXAF

DOCUMENT TYPE: LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE ______ ----_____ _____ JP 2008244424 Α 20081009 JP 2007-286460 20071102 A 20061102 PRIORITY APPLN. INFO.: JP 2006-299157 JP 2007-51580 A 20078001

The invention relates to an organic electroluminescent device, suited for use in making a color display device, comprising a blue-emitting electroluminescent layer fabricated between a pair of electrodes, herein the blue-emitting substance, typically a compound having a anthrace skeleton, is characterized by the glass transition temperature Tg %0 °C, and the solubility for toluene 3 0.2 %.

76656-53-6 518997-91-6 669016-17-5 855828-33-0

949925-38-6 1067224-98-9 1067224-99-0 1068163-54-1

1068163-56-3 1068163-60-9 1068163-64-3

1068163-66-5 1068163-68-7 1068163-70-1

1068163-72-3 1068163-75-6 1068163-77-8

1068163-79-0 1068163-81-4

RL: TEM (Technical or engineered material use); USES (Uses)

(blue-emitting substance; organic electroluminescent device, cotaing solution for making organic electroluminescent device and color displayedvice)

L11 ANSWER 5 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

DOCUMENT NUMBER: 149:345298

Organic EL material-containing solution, methodor TITLE:

forming organic EL thin film, organic EL device comprising organic EL thin film, and method for

manufacturing organic EL display panel

INVENTOR(S): Takeshima, Motohiro; Inoue, Tetsuya; Ando, Maktoo Idemitsu Kosan Co., Ltd., Japan; Sony Corporatoin PATENT ASSIGNEE(S):

PCT Int. Appl., 78pp. SOURCE:

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.				KIND DATE			APPLICATION NO.					DATE				
						-				- -						
WO	WO 2008105472				A1 20080904		WO 2008-JP53436						20082027			
	W:	ΑE,	AG,	ΑL,	AM,	AO,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY BZ,
		CA,	CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EGÆS,
		FI,	GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,KE,
		KG,	KM,	KN,	KP,	KR,	ΚZ,	LА,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA MD,
		ME,	MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,PH,
		PL,	PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,TM,
		TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW		
	RW:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HR HU,
		IE,	IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	NO,	PL,	PT,	RO,	SE,	SI,SK,
		TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,TD,
		TG,	BW,	GH,	GM,	KΕ,	LS,	MW,	ΜZ,	NA,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZM,ZW,
		AM,	AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM						
י אווע איינע איינע										с ат.	007-	5005	۵		A 20	ס מצמבי חיר

PRIORITY APPLN. INFO.: JP 2007-50859 A 20072028 OTHER SOURCE(S): MARPAT 149:345298

AB Disclosed is an organic EL material-containing solution containing organic EL material

and a solvent. The organic EL material contains at least a host at a

dopant, and the host is an anthracene derivative The solvent dissoves 30.5% by weight of the host. The solvent is preferably composed of cyclic ketone. It is further preferable that the solvent contains cyclohexanone derivative as a cyclic ketone.

REFERENCE COUNT: 18 THERE A

THERE ARE 18 CITED REFERENCES AVAILABLE OR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

IT 368884-57-5 462631-35-2 668020-20-0

668020-53-9 693289-38-2 764657-25-2 782504-32-9

1023704-75-7 1023704-82-6

RL: MOA (Modifier or additive use); USES (Uses)

(organic EL material-containing solns., forming organic EL thirfilms, and manufacture $\ensuremath{\mathsf{EL}}$

of organic EL display panels comprising organic EL thin films)

IT 108-94-1, Cyclohexanone, uses 584-03-2, 1,2-Butanediol 51013-1-8

Methylpyrrolidone 220797-16-0 667940-34-3 667940-36-5

853945-27-4 911390-86-8 911390-89-1

911390-91-5 911390-94-8 911390-96-0

911391-00-9 950177-55-6 1020401-48-2

1026768-23-9

RL: TEM (Technical or engineered material use); USES (Uses)

(organic EL material-containing solns., forming organic EL thinfilms, and manufacture

of organic EL display panels comprising organic EL thin films)

L11 ANSWER 6 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

2008:1046199 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER:

149:318989

TITLE:

Blue light emitting compound and organic

electroluminescent device using the same

INVENTOR(S):

Je, Jong-Tae; Lee, Sang-Hae; Hwang, Sug-Kwang Yoo,

Seon-Keun

PATENT ASSIGNEE(S):

SFC Co., Ltd., S. Korea

SOURCE:

U.S. Pat. Appl. Publ., 44pp.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION	NO.	DATE
US 20080203905	A1	20080828	US 2007-820	376 _.	20076021
KR 2008079956	Α	20080902	KR 2007-206	37	20072028
KR 874472	B1	20081218			
JP 2008214332	A	20080918	JP 2007-133	381	20075018
PRIORITY APPLN. INFO.:			KR 2007-206	37 A	20072028
OTHER SOURCE(S):	MARPAT	149:318989			

AB A blue light emitting compound I [A1-4 = C6-20 aryl, which may be substituted with C1-10 alkyl, alkoxy, alkylamino, alkylsilyl, cyanohalo, C6-20 aryloxy, arylamino, arylsilyl, or a C4-19 heteroaryl and A1-4 includes at least one alkylsilyl or arylsilyl; n = 0 or 1] and an magnic electroluminescent device using the compound are provided. The deve exhibits improved color purity of blue emission and excellent life characteristics so as to be used to manufacture a full-color displa

IT 1049806-90-7P 1049806-94-1P 1049807-00-2P

1049807-03-5P 1049807-10-4P 1049807-13-7P

1049807-15-9P 1049807-17-1P 1049807-19-3P 1049807-21-7P

1049807-23-9P 1049807-25-1P 1049807-27-3P

1049807-28-4P 1049807-29-5P 1049807-30-8P

1049807-31-9P 1049807-32-0P 1049807-33-1P

1049807-36-4P 1049807-38-6P 1049807-40-0P

1049807-42-2P 1049807-44-4P 1049807-46-6P

1049807-48-8P 1049807-50-2P 1049807-52-4P

```
1049807-54-6P 1049807-56-8P 1049807-58-0P
    1049807-60-4P 1049807-62-6P 1049807-64-8P
    1049807-66-0P 1049807-68-2P 1049807-70-6P
    1049807-72-8P 1049807-74-0P 1049807-76-2P
    1049807-78-4P 1049807-80-8P 1049807-82-0P
    1049807-84-2P 1049807-86-4P 1049807-88-6P
    1049807-90-0P 1049807-92-2P 1049807-94-4P
    1049807-96-6P 1049807-98-8P 1049808-00-5P
    1049808-02-7P 1049808-04-9P 1049808-06-1P
    1049808-08-3P 1049808-10-7P 1049808-12-9P
    1049808-14-1P 1049808-16-3P 1049808-18-5P
    1049808-20-9P 1049808-22-1P 1049808-24-3P
    1049808-26-5P 1049808-28-7P 1049808-30-1P
    1049808-32-3P 1049808-34-5P 1049808-36-7P
    1049808-38-9P 1049808-40-3P 1049808-42-5P
    1049808-43-6P 1049808-45-8P 1049808-47-0P
    1049808-49-2P
                   1049810-18-5P
    RL: SPN (Synthetic preparation); TEM (Technical or engineered materal
    use); PREP (Preparation); USES (Uses)
        (blue light emitting compound and organic electroluminescent devce using
       the same)
    847-39-2P 905-62-4P 15082-28-7P 1049808-65-2P
TΤ
    1049808-67-4P 1049808-69-6P 1049808-71-0P
    RL: SPN (Synthetic preparation); TEM (Technical or engineered materal
    use); PREP (Preparation); USES (Uses)
        (electron transport layer; blue light emitting compound and orgaic
       electroluminescent device using the same)
    26979-27-1P 122648-99-1P 722498-63-7P
IT
    844678-95-1P 1049808-52-7P 1049808-56-1P
     1049808-58-3P 1049808-60-7P 1049808-62-9P
    RL: SPN (Synthetic preparation); TEM (Technical or engineered materal
    use); PREP (Preparation); USES (Uses)
        (organic light-emitting layer; blue light emitting compound andorganic
        electroluminescent device using the same)
L11 ANSWER 7 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
                         2008:1045861 HCAPLUS <<LOGINID::20090416>>
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         149:318987
                         Organic-electroluminescence-material-containing
TITLE
                         solution, method for forming organic
                         electroluminescence thin film and organic
                         electroluminescence device
                         Inoue, Tetsuya; Fukuda, Masahiko; Takeshima, Moohiro;
INVENTOR(S):
                         Hosokawa, Chishio
                         Idemitsu Kosan Co., Ltd., Japan
PATENT ASSIGNEE(S):
                         U.S. Pat. Appl. Publ., 42pp.
SOURCE:
                         CODEN: USXXCO
DOCUMENT TYPE:
                         Patent
                         English
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                    DATE
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    US 20080206447
                                            US 2008-39297
                         A1
                                20080828
                                                                    20082028
    WO 2008105471
                         A1
                                20080904
                                           WO 2008-JP53435
                                                                    20082027
        W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BYBZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EGES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MAMD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG,PH,
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PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ,TM,

TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SISK,
             TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,TD,
             TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:
                                            JP 2007-50858
                                                                A 20072028
OTHER SOURCE(S):
                        MARPAT 149:318987
    An organic luminescent material-containing solution contains an oragic
     electroluminescent material and a solvent. The organic electrolummescent
    material at least contains a host and dopant, and the host is an
    anthracene derivative  The host is dissolved in the solvent with æontent of
     0.5 weight% or more while the solvent exhibits viscosity of 5 cP omore.
    The solvent contains an alkyl-substituted biphenyl that has an alky group
    having 1 to 10 C atoms as a substituent.
                                         668020-34-6
    462631-35-2 504408-22-4 668020-20-0
     668020-53-9
                 1023704-75-7 1023704-82-6
     RL: MOA (Modifier or additive use); TEM (Technical or engineered macrial
        (dopant; organic-electroluminescence-material-containing soluting method for
        forming organic electroluminescence thin film and organic electaluminescence
        device)
     853945-27-4 911390-86-8 950177-55-6
     1023705-32-9 1050409-66-9
     RL: TEM (Technical or engineered material use); USES (Uses)
        (host material; organic-electroluminescence-material-containingolution, method
        for forming organic electroluminescence thin film and organic
        electroluminescence device)
     1050409-71-6
     RL: TEM (Technical or engineered material use); USES (Uses)
        (organic-electroluminescence-material-containing solution, methob for forming
        organic electroluminescence thin film and organic electroluminesence device)
L11 ANSWER 8 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         2008:830563 HCAPLUS <<LOGINID::20090416>>
DOCUMENT NUMBER:
                         149:115859
                         Red-emitting organic electroluminescent device
                         containing styrylpyran-doped polycyclic aromatci
                         hydrocarbon phosphor and display therewith
                         Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukud
INVENTOR(S):
                         Toshihiro; Onishima, Yasunori
                         Sony Corp., Japan
Jpn. Kokai Tokkyo Koho, 35pp.
PATENT ASSIGNEE(S):
SOURCE:
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
                         Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                        KIND
                                DATE
                                          APPLICATION NO.
                                                                   DATE
                                -----
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     JP 2008159779
                        Α
                                20080710
                                         JP 2006-346069
                                                                  20062122
                                            JP 2006-346069
PRIORITY APPLN. INFO.:
                                                                   20062322
                        MARPAT 149:115859
OTHER SOURCE(S):
    The organic electroluminescent device has, between anode and cathord organic
     layers involving (A) emitting layer containing red-emitting guest IL1-L6 =
    H, C£20 alkyl(oxy), C£20 alkenyl, cyano, nitro, C£30
     silyl, C£30 aryl, C£30 heterocyclic, C£30 amino] in
     4-7-membered ring-based polycyclic aromatic hydrocarbon host and ()B the
    neighboring sensitizing layer containing another guest with emission
     wavelength shorter than that of A (e.g., blue- or green-emitting gast).
    Full-color display equipped with plural electroluminescent devicess
    above has high color purity and light emission efficiency.
    76656-53-6 111961-87-6
                              116942-09-7 194295-98-2
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IT

ΙT

IT

TITLE:

279672-22-9 593245-94-4 RL: MOA (Modifier or additive use); USES (Uses) (guest, blue-emitting, sensitizer layer; red-emitting organic electroluminescent device containing styrylpyran-doped polycycki aromatic hydrocarbon phosphor for display) 23786-72-3 155306-71-1 177799-11-0 574749-25-0 616235-15-5 851767-82-3 RL: MOA (Modifier or additive use); USES (Uses) (guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing styrylpyran-doped polycycki aromatic hydrocarbon phosphor for display) IT 517-51-1, Rubrene RL: TEM (Technical or engineered material use); USES (Uses) (host, red-emitting layer; red-emitting organic electroluminescat device containing styrylpyran-doped polycyclic aromatic hydrocarbon phephor for IT 92-24-0D, Naphthacene, derivs. 191-07-1D, Coronene, derivs. Perylene, derivs. 216-00-2D, Dibenzo[a,c]naphthacene, derivs. 218-01-9D, Chrysene, derivs. 226-88-0D, Benzo[a] naphthacene, dewis. 73467-76-2D, Benzopyrene, derivs. 122648-99-1, ADN RL: TEM (Technical or engineered material use); USES (Uses) (host, sensitizer layer; red-emitting organic electroluminescentdevice containing styrylpyran-doped polycyclic aromatic hydrocarbon phaphor for display) L11 ANSWER 9 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN 2008:830561 HCAPLUS <<LOGINID::20090416>> ACCESSION NUMBER: DOCUMENT NUMBER: 149:115858 TITLE: Red-emitting organic electroluminescent device containing pyrromethene complex-doped polycycki aromatic hydrocarbon phosphor and display themeith INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukud Toshihiro; Onishima, Yasunori PATENT ASSIGNEE(S): Sony Corp., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 43pp. CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: PATENT INFORMATION: PATENT NO. KIND DATE APPLICATION NO. DATE ----<u>.</u> _ _ _ _ _ _ ______ JP 2008159777 Α 20080710 JP 2006-346067 2006222 PRIORITY APPLN. INFO.: JP 2006-346067 20062122 MARPAT 149:115858 OTHER SOURCE(S): The organic electroluminescent device has, between anode and cathæd organic layers involving (A) emitting layer containing red-emitting quest I(Z1-Z9 = H, halo, C£20 alkyl, C£20 alkenyl, C£20 alkoxy, cyano, nitro, C£30 silyl, C£30 aryl, C£30 heterocyclic, C£30 amino) in 4-7-membered ring-based polycyclic aromatic hydrocarbon host and (B) the neighboring sensitizing layercontaining another guest with emission wavelength shorter than that of A (e.g. blueor green-emitting guest). Full-color display equipped with plural electroluminescent devices as above has high color purity and light emission efficiency. 23786-72-3 76656-53-6 111961-87-6 116942-09-7 194295-98-2 279672-22-9 RL: MOA (Modifier or additive use); USES (Uses) (guest, blue-emitting, sensitizer layer; red-emitting organic electroluminescent device containing pyrromethene-doped polycydk aromatic hydrocarbon phosphor for display) 19205-19-7 155306-71-1 177799-11-0 616235-15-5 851767-82-3

RL: MOA (Modifier or additive use); USES (Uses) (guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing pyrromethene-doped polycydb aromatic hydrocarbon phosphor for display)

IT 517-51-1, Rubrene

> RL: TEM (Technical or engineered material use); USES (Uses) (host, red-emitting layer; red-emitting organic electroluminescat device containing pyrromethene-doped polycyclic aromatic hydrocarbon phsphor for display)

IT 92-24-0D, Naphthacene, derivs. 191-07-1D, Coronene, derivs. 19855-0D, Perylene, derivs. 218-01-9D, Chrysene, derivs. 73467-76-2D, Benzopyrene, derivs. 122648-99-1, ADN

RL: TEM (Technical or engineered material use); USES (Uses) (host, sensitizer layer; red-emitting organic electroluminescentdevice containing pyrromethene-doped polycyclic aromatic hydrocarbon phsphor for display)

L11 ANSWER 10 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:830556 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER: 149:115857

TITLE: Red-emitting organic electroluminescent device

> containing diketopyrrolopyrrole-doped polycycki aromatic hydrocarbon phosphor and display themeith Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukud

Toshihiro; Onishima, Yasunori

PATENT ASSIGNEE(S):

Sony Corp., Japan Jpn. Kokai Tokkyo Koho, 36pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE:

INVENTOR(S):

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008159776	Α	20080710	JP 2006-346066	20062122
PRIORITY APPLN. INFO.:			JP 2006-346066	20062022
OTHER SOURCE(S):	MARPAT	149:115857		

The organic electroluminescent device has, between anode and cathord organic layers involving (A) emitting layer containing red-emitting guest I(Y1, Y2 = O, imino; Y3-Y8 = H, halo, C£20 alkyl, C£20 alkenyl, C£30 aryl, C£30 heterocyclic, C£30 amino; Ar1, Ar2 = aromatic hydrocarbylene, divalent aromatic heterocyclic ring] in 47-membered ring-based polycyclic aromatic hydrocarbon host and (B) the neighbring sensitizing layer containing another guest with emission wavelengthshorter than that of A (e.g., blue- or green-emitting guest). Full-color idsplay equipped with plural electroluminescent devices as above has high cdor purity and light emission efficiency.

111961-87-6 116942-09-7 194295-98-2 IT 76656-53-6 279672-22-9 593245-94-4

RL: MOA (Modifier or additive use); USES (Uses)

(quest, blue-emitting, sensitizer layer; red-emitting organic electroluminescent device containing diketopyrrolopyrrole-dopedolycyclic aromatic hydrocarbon phosphor for display)

155306-71-1 23786-72-3 177799-11-0 574749-25-0 616235-15-5 IT 851767-82-3

RL: MOA (Modifier or additive use); USES (Uses) (guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing diketopyrrolopyrrole-dopedolycyclic aromatic hydrocarbon phosphor for display)

TT 517-51-1, Rubrene

> RL: TEM (Technical or engineered material use); USES (Uses) (host, red-emitting layer; red-emitting organic electroluminescret device

containing diketopyrrolopyrrole-doped polycyclic aromatic hydroarbon phosphor for display) 92-24-0D, Naphthacene, derivs. 191-07-1D, Coronene, derivs. Perylene, derivs. 216-00-2D, Dibenzo[a,c]naphthacene, derivs. 218-01-9D, Chrysene, derivs. 226-88-0D, Benzo[a]naphthacene, dews. 73467-76-2D, Benzopyrene, derivs. 122648-99-1, ADN RL: TEM (Technical or engineered material use); USES (Uses) (host, sensitizer layer; red-emitting organic electroluminescentdevice containing diketopyrrolopyrrole-doped polycyclic aromatic hydroxrbon phosphor for display) L11 ANSWER 11 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:830554 HCAPLUS <<LOGINID::20090416>> DOCUMENT NUMBER: 149:115856 TITLE: Red-emitting organic electroluminescent device containing aromatic styryl compound-doped polyxclic aromatic hydrocarbon phosphor and display themeth INVENTOR(S): Matsunami, Shigeyuki; Kurotaki, Kimiyuki; Fukud Toshihiro; Onishima, Yasunori Sony Corp., Japan Jpn. Kokai Tokkyo Koho, 36pp. PATENT ASSIGNEE(S): SOURCE: CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: KIND DATE APPLICATION NO. PATENT NO. DATE · A 20080710 JP 2006-346065 2006222 JP 2008159775 PRIORITY APPLN. INFO.: JP 2006-346065 MARPAT 149:115856 OTHER SOURCE(S): The organic electroluminescent device has, between anode and cathed organic layers involving (A) emitting layer containing red-emitting quest T1CH:CHT4NT2T3 [T1-T3 = C£30 aryl, C£30 heterocyclic; T4 = (un) substituted phenylene (cyclized with T2 and T3)] in 4-7-memberde ring-based polycyclic aromatic hydrocarbon host and (B) the neighbring sensitizing layer containing another guest with emission wavelengthshorter than that of A (e.g., blue- or green-emitting guest). Full-color idsplay equipped with plural electroluminescent devices as above has high cdor purity and light emission efficiency. IT 76656-53-6 111961-87-6 116942-09-7 194295-98-2 279672-22-9 593245-94-4 RL: MOA (Modifier or additive use); USES (Uses) (guest, blue-emitting, sensitizer layer; red-emitting organic electroluminescent device containing aromatic styryl compound-qued polycyclic aromatic hydrocarbon phosphor for display) 23786-72-3 155306-71-1 177799-11-0 574749-25-0 616235-15-5 IT 851767-82-3 RL: MOA (Modifier or additive use); USES (Uses) (guest, green-emitting, sensitizer layer; red-emitting organic electroluminescent device containing aromatic styryl compound-ofmed polycyclic aromatic hydrocarbon phosphor for display) 517-51-1, Rubrene TΥ RL: TEM (Technical or engineered material use); USES (Uses) (host, red-emitting layer; red-emitting organic electroluminescet device containing aromatic styryl compound-doped polycyclic aromatic Marocarbon phosphor for display)

92-24-0D, Naphthacene, derivs. 191-07-1D, Coronene, derivs. 1985 Perylene, derivs. 216-00-2D, Dibenzo[a,c]naphthacene, derivs. 218-01-9D, Chrysene, derivs. 226-88-0D, Benzo[a]naphthacene, dewis.

73467-76-2D, Benzopyrene, derivs. 122648-99-1

RL: TEM (Technical or engineered material use); USES (Uses) (host, sensitizer layer; red-emitting organic electroluminescentdevice containing aromatic styryl compound-doped polycyclic aromatic Marocarbon phosphor

for display)

L11 ANSWER 12 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:800285 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER: 149:139926

TITLE:

Organic electroluminescent device and display Matsunami, Shigeyuki; Kurotaki, Masayuki; Fukud

Toshihiro; Kijima, Yasunori

PATENT ASSIGNEE(S):

Sony Corporation, Japan U.S. Pat. Appl. Publ., 29pp.

CODEN: USXXCO

DOCUMENT TYPE:

INVENTOR(S):

SOURCE:

LANGUAGE:

Patent English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20080157657	A1	20080703	US 2007-959694	2007211.9
JP 2008159778	Α	20080710	JP 2006-346068	20062022
JP 4254856	B2	20090415		
PRIORITY APPLN. INFO.:			JP 2006-346068 A	20062222
OTHER SOURCE(S):	MARPAT	149:139926		

According to an embodiment of the present invention, there is provided an organic electroluminescent device for emitting red light having amorganic layer that includes a light-emitting layer and is provided between an ambe and a cathode. The light-emitting layer contains a red light-emittingquest material and a host material that is composed of a polycyclic aromaic hydrocarbon compound having a skeleton with four- to seven-memberedings. Furthermore, a light-enhancing layer that contains a light-emittingquest material for generating light having a wavelength shorter than thatof light emitted by the light-emitting layer is provided adjacent to he light-emitting layer.

517-51-1, Rubrene 122648-99-1, ADN IT

RL: TEM (Technical or engineered material use); USES (Uses) (light emitting layer host material; organic electroluminescentdevice and display containing)

IT 76656-53-6 111961-87-6 116942-09-7 122648-99-1 155306-71-1 175606-05-0 177799-11-0 194295-98-2 279672-22-9 574749-25-0 593245-94-4 616235-15-5 851767-82-3

RL: TEM (Technical or engineered material use); USES (Uses) (light-emitting guest material; organic electroluminescent device and display containing)

L11 ANSWER 13 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:

2008:587623 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER:

148:572142

TITLE:

Organic EL material-containing solution, methodor forming thin film of organic EL material, thirfilm of

organic EL material, and organic EL device

INVENTOR(S):

Inoue, Tetsuya; Funahashi, Masakazu; Kubota, Mieyuki;

Ito, Mitsunori; Hosokawa, Chishio Idemitsu Kosan Co., Ltd., Japan

PATENT ASSIGNEE(S):

PCT Int. Appl., 54pp.

SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: '

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                        KIND DATE
                                          APPLICATION NO.
                                                                 DATE
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     WO 2008056722
                        A1
                               20080515
                                          WO 2007-JP71679
                                                                 20071108
        MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,PT,
            RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,TR,
            TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
            IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TRBF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
            GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM AZ,
            BY, KG, KZ, MD, RU, TJ, TM
     JP 2008124156
                         Α
                               20080529
                                           JP 2006-304627
                                                                  20061109
                               20080515
     US 20080113101
                         A1
                                           US 2006-564058
                                                                 20061128
PRIORITY APPLN. INFO.:
                                           JP 2006-304627
                                                              A 20061109
OTHER SOURCE(S):
                        MARPAT 148:572142
     Disclosed is an organic EL material-containing solution which contans an organic EL
    material, a solvent and a viscosity adjusting agent. The organic IE material contains a host represented by I or II [Ar1-3 = aryl, heteroaryl ah
     C10-30 condensed aromatic group; L = single bond, divalent linkingroup,
     arylene and heteroarylene; and n = 1-4 integer] and a dopant. The host
     represented by I or II has a solubility of 3 2 % in the solvent. Me
     solvent is composed of an aromatic solvent, and the viscosity adjusing agent
     is an alc. solution or a solution of an alkyl-substituted aromaticompound having
     34 C atoms.
REFERENCE COUNT:
                              THERE ARE 8 CITED REFERENCES AVAILABLE BOTHIS
                              RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
     668020-28-8 668020-34-6 668020-53-9 668020-61-9
     668020-88-0 693289-38-2 693289-44-0 764657-24-1
    764657-25-2 782504-31-8
                                782504-32-9 886456-84-4
     1023704-65-5 1023704-68-8 1023704-70-2 1023704-75-7
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                                                 1023704-86-0
                                                                102370488-2
                  1023704-92-8
                                1023704-94-0
     1023704-90-6
                                                 1023704-96-2
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     1023705-09-0 1023705-14-7 1023705-16-9
     1023705-18-1 1023705-20-5 1023705-22-7
                                                 1023705-26-1
     RL: MOA (Modifier or additive use); TEM (Technical or engineered maerial
     use); USES (Uses)
        (organic EL material-containing solution for printing thin filmof organic el
       material used in organic EL device)
IT
     667940-34-3 853945-27-4 911390-86-8
     1023705-30-7 1023705-32-9
     RL: TEM (Technical or engineered material use); USES (Uses)
        (organic EL material-containing solution for printing thin filmof organic el
       material used in organic EL device)
L11 ANSWER 14 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
                        ACCESSION NUMBER:
DOCUMENT NUMBER:
                        147:417551
                        New diamine derivatives, preparation method threof
TITLE:
                        and organic electronic device using the same
INVENTOR(S):
                        Jang, Hye-Young; Lee, Jae-Chol; Park, Jin-Kyoon Kim,
                        Kong-Kyeom; Kim, Ji-Eun; Park, Tae-Yoon; Hong,
                        Sung-Kil; Jeon, Sang-Young; Jeong, Dong-Seob
                        LG Chem, Ltd., S. Korea
PATENT ASSIGNEE(S):
SOURCE:
                        PCT Int. Appl., 85 pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
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LANGUAGE: English

FAMILY ACC. NUM. COUNT:

951039-19-3P

951039-20-6P

951039-24-0P 951039-25-1P 951039-26-2P 951039-27-3P

951039-29-5P 951039-30-8P 951039-31-9P 951039-32-0P

PATENT INFORMATION:

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PATENT NO.
                        KIND
                              DATE
                                           APPLICATION NO.
                                                                  DATE
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                                            ______
                                         WO 2007-KR1448
    WO 2007108666
                               20070927
                         A1
                                                                   20078023
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
            CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FIGB,
            GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,KM,
            KN, KP, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN,
            MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RORS,
            RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,TZ,
            UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
        RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
           . IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR,BF,
            BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG,BW,
            GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
            BY, KG, KZ, MD, RU, TJ, TM
    KR 2007096917
                                20071002
                                           KR 2007-28835
                         Α
                                                                   20078023
    KR 877876
                         B1
                                20090113
    EP 1996540
                         A1
                                20081203
                                          EP 2007-715784
                                                                   20073023
        R: DE, FR, GB
     KR 2008071969
                         Α
                                20080805
                                           KR 2008-72695
                                                                   20087025
     KR 867526
                         B1
                                20081106
                                           CN 2007-80010256
                                                                   20089023
     CN 101405255
                         Α
                                20090408
                                                               A 2006/023
                                            KR 2006-26468
PRIORITY APPLN. INFO.:
                                                              A3 20078023
                                            KR 2007-28835
                                            WO 2007-KR1448
                                                              W 20078023
OTHER SOURCE(S):
                        MARPAT 147:417551
    The title diamine derivs. are described by the general formula
     (Z1-Y1-)(A1-)N-L-N(-A2)(-Y2-Z2) (L = C6-30 aryl; A1 and A2 = independently
     selected Ph or naphthyl groups with 1-5 substituents, 31 of which
     is selected from -GeRR'R", -SiRR'R", and D with the remaining subsittuents
     being independently selected from H, CN, NO2, C6-20 arylamine, C6-02
     arylthiophene, C3-20 cycloalkyl, -OR, -SR, -SeR, -TeR, -BRR', -AlRR
     -SnRR'R'', C6-20 aryl, C8-20 arylalkenyl, and C4-20 alkylene whichforms a
     fused ring with the Ph or the naphthyl; Y1 and Y2 = independently elected
     C6-20 arylene or divalent C5-20 heterocycle; Z1 and Z2 are = indepmedently
     selected H0, halo, D, CN, NO2, C1-20 alkyl, C1-20 alkoxy, C6-20 arly,
     C6-20 arylamine, C6-20 arylthiophene, C3-20 cycloalkyl, -OR, -SR, SeR,
     -TeR, - BRR', -AlRR', -SiRR'R", -GeRR'R", -SnRR'R", C8-20 arylalked, and
     C4-20 alkylene which forms a fused ring with the Ph or the naphthy, land
     R, R' and R" = independently selected H, C1-20 alkyl, C3-20 cyclokkyl,
     C6-20 aryl, or C5-20 heterocycle). Methods for preparing the diamme derivs.
     are described which entail reacting a dibromoaryl compound with amarylamine
     compound in the presence of a Pd catalyst. Electronic devices (e.g organic
     light-emitting devices, organic photovoltaic cells, organic photograductors, and
     organic transistors) employing the derivs. in 31 layer between a par
     of electrodes are also described. The diamine derivs. can serve image
     hole-injecting and/or hole-transporting layer, an electron-transporing
     layer, or a light-emitting layer.
REFERENCE COUNT:
                               THERE ARE 5 CITED REFERENCES AVAILABLE FO THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
    756899-50-0P 951038-25-8P 951038-45-2P
                                              951038-47-4P
     951038-51-0P
                   951038-60-1P
                                   951038-64-5P 951038-74-7P
                                                                 9510387-7-0P
                    951038-89-4P
                                   951038-93-0P 951038-97-4P
     951038-84-9P
     951039-02-4P 951039-06-8P 951039-10-4P
    951039-12-6P 951039-13-7P 951039-14-8P
    951039-15-9P 951039-16-0P 951039-17-1P
                                                  951039-18-2P
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951039-21-7P

951039-22-8P

95103923-9P

95103928-4P

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951039-34-2P 951039-35-3P 951039-36-4P
     951039-33-1P
     951039-37-5P 951039-38-6P
                                951039-62-6P
     RL: IMF (Industrial manufacture); TEM (Technical or engineered matrial
     use); PREP (Preparation); USES (Uses)
        (diamine derivs. and their preparation and organic electronic deices using
     6999-03-7P
TT
                 13024-18-5P 33733-44-7P 37055-51-9P 95952-57-1P
     201929-92-2P
                   950186-91-1P 951039-39-7P
                                                  951039-40-0P 9510394-1-1P
     951039-42-2P
                   951039-43-3P
                                   951039-44-4P
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) RACT
     (Reactant or reagent)
        (diamine derivs. and their preparation and organic electronic deices using
        them)
     756899-61-3
                  756899-70-4 950507-14-9 951038-26-9
     951038-27-0 951038-28-1 951038-29-2
     951038-30-5 951038-31-6 951038-32-7
     951038-33-8 951038-34-9 951038-35-0
     951038-36-1 951038-37-2 951038-38-3
     951038-39-4 951038-40-7 951038-41-8
     951038-42-9 951038-43-0 951038-44-1 951038-46-3
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     951038-54-3 951038-55-4
                               951038-56-5 951038-57-6 951038-58-7
     951038-59-8 951038-61-2
                               951038-62-3 951038-63-4
                                                            951038-65-6

    951038-66-7
    951038-67-8

    951038-71-4
    951038-72-5

    951038-78-1
    951038-79-2

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     951039-08-0 951039-09-1 951039-11-5
     951039-61-5
     RL: TEM (Technical or engineered material use); USES (Uses)
        (diamine derivs. and their preparation and organic electronic deices using
L11 ANSWER 15 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
                      2007:819518 HCAPLUS <<LOGINID::20090416>>
ACCESSION NUMBER:
DOCUMENT NUMBER:
                        147:176792
TITLE:
                        Organic electroluminescent element showing imprved
                        luminous efficiency and driving durability
INVENTOR(S):
                        Tada, Hiroshi
PATENT ASSIGNEE(S):
                        Fujifilm Corporation, Japan
                        U.S. Pat. Appl. Publ., 19pp.
SOURCE:
                        CODEN: USXXCO
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
     PATENT NO.
                        KIND
                               DATE
                                          APPLICATION NO.
                                                                   DATE
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                               -----
                                           ------
     US 20070172701
                        A1
                               20070726
                                           US 2007-655185
                                                                   20071019
     JP 2007221113
                        Α
                               20070830
                                           JP 2007-9343
                                                                   20071018
PRIORITY APPLN. INFO.:
                                            JP 2006-14297
                                                              A 2006L023
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AB The invention provides an organic electroluminescent element that as a pair of electrodes, and one or more organic compound layers disposed betten the pair of electrodes and including at least one luminescent layer, ah in which at least one layer of the organic compound layers includes at east one compound selected from a trispyrenylbenzene derivative and a dipyreylbenzene derivative and at least one compound selected from a tetraphenylpene derivative

MARPAT 147:176792

OTHER SOURCE(S):

and a tetraminopyrene derivative IT 600156-21-6 671212-47-8 790273-07-3 943854-86-2 RL: MOA (Modifier or additive use); USES (Uses) (luminescent material in luminescent layer; organic electroluminescent element showing improved driving durability) L11 ANSWER 16 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:286585 HCAPLUS <<LOGINID::20090416>> DOCUMENT NUMBER: 146:326093 TITLE: Method for producing aromatic compound and arcamtic compound INVENTOR(S): Moriwaki, Fumio; Matsunami, Hidehiro; Inoue, Tesuya PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan SOURCE: U.S. Pat. Appl. Publ., 21pp. CODEN: USXXCO DOCUMENT TYPE: Patent LANGUAGE: English FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION: APPLICATION NO. PATENT NO. KIND DATE DATE ----------A1 US 20070060777 20070315 US 2006-473178 20066023 A 20070329 JP 2005-267409 A1 20070322 WO 2006-JP312111 JP 2007077078 WO 2007032131 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BFBJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZBY, KG, KZ, MD, RU, TJ, TM EP 1947076 A1 20080723 EP 2006-766799 20066016 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR CN 2006-80033108 2008010 A 20080910 KR 2008046657 Α 20080527 KR 2008-706132 2008013 IN 2008CN01256 Α 20081128 IN 2008-CN1256 20088013 PRIORITY APPLN. INFO.: JP 2005-267409 A 200590L4 WO 2006-JP312111 W 20066016 CASREACT 146:326093 OTHER SOURCE(S): A process for producing an aromatic compound which can effectively decrease the contents of halogen elements in the aromatic compound and an aromatic compound which is produced in accordance with the process and useful as the materal for obtaining an organic electroluminescence device having a long lifære provided. The process for producing an aromatic compound comprisesbringing an aromatic compound which is produced via an intermediate compound haing halogen elements and has contents of halogen elements of 10 to 1,000 ppm bymass into reaction with a dehalogenating agent to decrease the contentsof halogen elements to 10 ppm by mass or smaller, and an aromatic command which is produced in accordance with the process. 76656-53-6 RL: TEM (Technical or engineered material use); USES (Uses) (light emitting layer; production of aromatic compound with halpen content low for organic electroluminescence device)

IT

667940-34-3P, 9-(Naphthyl-2-yl)

10-(4-(naphthyl-1-yl)phenyl-1-yl)anthracene 855004-52-3P

RL: IMF (Industrial manufacture); PUR (Purification or recovery); EM (Technical or engineered material use); PREP (Preparation); USES (Mes) (production of aromatic compound with halogen content low for oganic electroluminescence device)

IT 667940-34-3DP, Bu lithium adduct 667940-34-3DP, Ph Grignard adduct 667940-34-3DP, Ph Suzuki coupling adduct 855004-52-3DP, Bu lithium adduct 855004-52-3DP, Ph Suzuki coupling adduct

RL: IMF (Industrial manufacture); TEM (Technical or engineered matrial use); PREP (Preparation); USES (Uses)

(production of aromatic compound with halogen content low for omanic electroluminescence device)

L11 ANSWER 17 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1173494 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER: 145:498536

TITLE: Organic electronic devices and boronic acid and

boronic acid derivatives used therein

INVENTOR(S): Stoessel, Philipp; Breuning, Esther; Buesing, Mane;

Parham, Amir; Heil, Holger; Vestweber, Horst

PATENT ASSIGNEE(S): Merck Patent G.m.b.H., Germany

SOURCE: PCT Int. Appl., 159pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.
                          KIND
                                  DATE
                                              APPLICATION NO.
                                                                       DATE
     WO 2006117052
                          A1
                                  20061109
                                             WO 2006-EP3150
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MWMX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZBY,
             KG, KZ, MD, RU, TJ, TM
     EP 1888706
                                  20080220
                                               EP 2006-724095
                           A1
                                                                        20064006
            AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
     JP 2008541417
                           T
                                  20081120
                                              JP 2008-509318
                                                                       20064006
     CN 101171320
                           Α
                                  20080430
                                               CN 2006-80015401
     KR 2008012337
                           A
                                  20080211
                                               KR 2007-728263
                                                                        20072103
PRIORITY APPLN. INFO.:
                                               EP 2005-9643
                                                                    A 20055003
                                               WO 2006-EP3150
                                                                    W 20064006
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AB Organic electronic devices (e.g., organic or polymer light-emittingliodes, organic field-effect transistors, organic integrated circuits, organic thinfilm transistors, organic light-emitting transistors, organic solar cekl, organic field quenching devices, organic light-emitting cells, organic photorectors, and organic laser diodes) are described which comprise 31 organic film including 31 aromatic boronic acid or boronic acid derivative compand. The compds. may serve as fluorescent or phosphoresent dopants, as hole-blocking materials, as hole-transporting materials, or as electron-transporting materials. Oligomeric, dendrimeric, and polymeric compds. of boronic acid or boronic acid derivative compds. are alsodescribed. Methods for synthesizing polymers including boronic acid. derivs. me described which entail polycondensation of alighatic or aromatic bsi(diols),

bis(dithiols), bis(diamines), or similar higher substituted compds with an aromatic bisboronic acid or higher boronic acid or by reaction fo an aromatic compound that includes 2 hydroxy, thiol, or amino groups as well as boronic acid group.
ERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE OR THIS

```
REFERENCE COUNT:
                              RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
    910244-23-4P
                   914306-83-5P, 10-(4-Methylnaphth-1-yl)anthracen-9-bonic
     acid pinacol ester 914306-84-6P
                                     914306-85-7P
     914306-86-8P 914306-88-0P 914306-90-4P
     914306-91-5P 914306-94-8P 914306-95-9P
                                             914306-96-0P
     914306-97-1P 914306-98-2P 914307-03-2P
                                               914307-04-3P
                  914307-08-7P 914307-09-8P
     914307-06-5P
                                               914307-11-2P
     RL: DEV (Device component use); SPN (Synthetic preparation); PREP
     (Preparation); USES (Uses)
        (organic electronic devices and boronic acid and boronic acid daivs. used
       in them and production of polymers including boronic acid-contaming groups)
TT
     64-19-7, Acetic acid, reactions 83-53-4, 1,4-Dibromonaphthalene
     84-65-1, Anthraquinone 90-11-9, 1-Bromonaphthalene
     Pyrocatechol, reactions 121-43-7, Trimethyl borate
    N-Bromosuccinimide 159-66-0, Spiro-9,9'-bifluorene
                                                          523-27-3,
     9,10-Dibromoanthracene
                             583-53-9, 1,2-Dibromobenzene
                                                            586-75-4
     611-24-5, 2-Methylaminophenol 620-93-9, Bis(4-methylphenyl)amine
     633-70-5, 2,6-Dibromoanthraquinone
                                       918-21-8
                                                    1564-64-3,
                       3762-25-2
     9-Bromoanthracene
                                  7726-95-6, Bromine, reactions
     15546-43-7, N,N,N',N'-Tetraphenylbenzidine 25015-63-8, Pinacolbæme
     25069-38-9, Bis (4-bromophenyl) (4-formylphenyl) amine
                                                          58328-31-7
     85199-06-0, 2,5-Dimethylphenylboronic acid 100622-34-2, 9-Anthræme
     boronic acid
                  113040-41-8, Dibromopyrene
                                                119001-43-3
                                                             187595-1-59
     454454-92-3
                  613682-84-1 914306-87-9
                                            914450-89-8
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (organic electronic devices and boronic acid and boronic acid davs. used
        in them and production of polymers including boronic acid-contaming groups)
    70430-42-1P 99372-95-9P
                              103986-53-4P
                                            113664-24-7P,
     N, N, N', N'-Tetra (4-bromophenyl) benzidine
                                             177799-11-0P
     426218-39-5P, 9,10-Bis(4-bromonaphth-1-yl)anthracene
     560107-57-5P, 1,2-Bis(anthracen-9-yl)benzene
                                                   597570-70-2P
     663954-33-4P, 1,6-Bis[(4-methylphenyl)amino]pyrene
     756899-77-1P, 1,4-Bis(anthracen-9-yl)naphthalene 910244-27-8P,
     1,2-Bis(10-bromoanthracen-9-yl)benzene 912483-18-2P
                                                           912483-19-P3
     914306-89-1P, 2,6-Dibromo-9,10-bis(naphth-1-yl)anthracene
     914306-92-6P, 1,6-Bis(2,5-dimethylphenyl)pyrene
                                                    914306-93-7P.
     1,6-Bis(2,5-dimethylphenyl)-3,8-dibromopyrene 914307-00-9P
                  914307-05-4P, 2,2'-Bis(4-bromobenzoyl)spiro-9,9'-bilfuorene
     914307-02-1P
     914307-07-6P 914307-10-1P,
     1,6-Bis[(4-methylphenyl)amino]-3,8-dibromopyrene
                                                       914307-12-3P,
     9,10-Bis-N,N-[di(4-bromophenyl)amino]anthracene
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation) RACT
     (Reactant or reagent)
        (organic electronic devices and boronic acid and boronic acid days. used
        in them and production of polymers including boronic acid-contaming groups)
L11 ANSWER 18 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                        DOCUMENT NUMBER:
                        145:345018
TITLE:
                        Color conversion substrate, method for manufactring
                        same and light-emitting device
INVENTOR(S):
                        Eida, Mitsuru; Hachiya, Satoshi; Katano, Junidh
PATENT ASSIGNEE(S):
                        Idemitsu Kosan Co., Ltd., Japan
SOURCE:
                        PCT Int. Appl., 57pp.
                        CODEN: PIXXD2
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        Japanese
FAMILY ACC. NUM. COUNT: 1
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PATENT INFORMATION:

LANGUAGE:

Japanese

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APPLICATION NO.
                                                                       DATE
     PATENT NO.
                          KIND DATE
                           _ _ _ _
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     WO 2006100957
                           A1
                                  20060928
                                               WO 2006-JP304943
                                                                        2006-014
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
              KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW MX,
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              SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
              VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
              IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BFBJ,
              CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,GH,
              GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZBY,
              KG, KZ, MD, RU, TJ, TM
                                  20071205
     EP 1863323
                           A1
                                             EP 2006-729008
                                                                         20063014
         R: DE, FR, GB
     US 20070090755
                           Α1
                                  20070426 US 2006-406316
                                                                        20064019
     CN 101133684
                           Α
                                  20080227
                                               CN 2006-80007075
                                                                        20072004
     KR 2007115995
                           Α
                                  20071206
                                               KR 2007-721756
                                                                        20079021
PRIORITY APPLN. INFO.:
                                               JP 2005-81222
                                                                     A 20053022
                                               WO 2006-JP304943
                                                                    W 20063014
     Disclosed is a light-emitting device of color conversion type which as
     good white balance and excellent durability. Also disclosed are æolor
     conversion substrate used therefor, and a method for producing sucha
     color conversion substrate. Specifically disclosed is a color comersion
     substrate comprising, on a substrate, a first fluorescent layer probacing
     a first fluorescence and a second fluorescent layer producing a seemd
     fluorescence. The first fluorescent layer contains an organic phoshor, and
     the second fluorescent layer contains a semiconductor nanocrystal. It is
     particularly preferable that the first fluorescent layer is a green
     fluorescent layer while the second fluorescent layer is a red fluomescent
     layer.
REFERENCE COUNT:
                                 THERE ARE 21 CITED REFERENCES AVAILABLE OR THIS
                           21
                                 RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
     1306-24-7, Cadmium selenide, uses 1314-98-3, Zinc sulfide, uses
     2085-33-8, Alq3 7429-90-5, Aluminum, uses 7439-93-2, Lithium, ses
     7440-21-3, Silicon, uses 7631-86-9, Silica, uses 59680-94-3, Kympton fluoride 123847-85-8, a-NPD 124729-98-2, MTDATA 142289-08-5,
     DPVBi 164724-35-0 177529-70-3, V 259G 177529-71-4, V 259R 192140-79-7, V 259BK 209980-47-2 462631-35-2 667940-34-3
     RL: DEV (Device component use); USES (Uses)
         (color conversion substrate, method for manufacturing same and ight-emitting
        device)
IT
     76656-53-6
     RL: DEV (Device component use); MOA (Modifier or additive use); USE
         (color conversion substrate, method for manufacturing same and ight-emitting
         device)
L11 ANSWER 19 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                          2006:656144 HCAPLUS <<LOGINID::20090416>>
DOCUMENT NUMBER:
                           145:115194
TITLE:
                           Luminescent ink composition for organic
                           electroluminescent device
INVENTOR(S):
                           Inoue, Tetsuya; Kondo, Hirofumi; Ikeda, Hidetsu
                          Idemitsu Kosan Co., Ltd., Japan
PATENT ASSIGNEE(S):
                          PCT Int. Appl., 66 pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
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FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

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DATE
     PATENT NO.
                          KIND
                                             APPLICATION NO.
                                                                       DATE
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                                              ______
     WO 2006070712
                          A1
                                 20060706
                                              WO 2005-JP23712
                                                                       20052126
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
             SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
             VN, YU, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF,BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,BY,
             KG, KZ, MD, RU, TJ, TM
     US 20080001123
                         A1
                                  20080103
                                              US 2007-813062
                                                                        20076028
PRIORITY APPLN. INFO.:
                                                                   A 20042128
                                               JP 2004-380642
                                               WO-2005-JP23712
                                                                    W 20052126
OTHER SOURCE(S):
                          MARPAT 145:115194
     Disclosed is a luminescent ink composition for organic EL devices wich contains a
     low-mol. weight material of high solubility and can be easily formde into a thin
     film by a wet process. This ink composition enables to form an oragic thin film
     using a luminescent low-mol. weight material with high productivityby a wet
     process. Specifically disclosed is a luminescent ink composition of organic
     electroluminescent devices which is composed of the following composents
     (A), (B) and (C): (A) an anthracene derivative, (B) a fused aromatrining compound
     having a substituted arylamino group and/or a styryl derivative hawng a
     substituted arylamino group (C) an organic solvent.
REFERENCE COUNT:
                                 THERE ARE 13 CITED REFERENCES AVAILABLE OR THIS
                          13
                                 RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
     2085-33-8, Tris(8-quinolinolato)aluminum 55035-42-2 312497-12-4
     663954-33-4 667940-34-3 667940-36-5
     693289-37-1 853945-27-4 853945-29-6
     853945-36-5 855828-33-0 896457-49-1
     RL: DEV (Device component use); USES (Uses)
         (luminescent ink compns. for organic electroluminescent devices)
L11 ANSWER 20 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
                          2006:655758 HCAPLUS <<LOGINID::20090416>>
ACCESSION NUMBER:
DOCUMENT NUMBER:
                          145:92741
TITLE:
                          Organic electroluminescent device
                          Kondo, Hirofumi; Inoue, Tetsuya
INVENTOR(S):
PATENT ASSIGNEE(S):
                          Idemitsu Kosan Co., Ltd., Japan
                          PCT Int. Appl., 31 pp.
SOURCE:
                          CODEN: PIXXD2
DOCUMENT TYPE:
                          Patent
                          Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
                          1
PATENT INFORMATION:
                         KIND DATE
                                            APPLICATION NO.
                                                                      DATE
     PATENT NO.
                          A1 20060706
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                                               -----
                                             WO 2005-JP23714
                                 20060706
     WO 2006070713
                                                                      20052026
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP,KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
             MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
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SG. SK. SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC.

VN, YU, ZA, ZM, ZW

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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF,BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZBY,
             KG, KZ, MD, RU, TJ, TM
     EP 1840990
                          A1
                                20071003
                                            EP 2005-842270
                                                                    20052026
         R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR
     CN 101088181
                          Α
                                20071212
                                            CN 2005-80044813
     KR 2007093076
                                20070917
                                            KR 2007-714643
                          Α
                                                                    20076027
     IN 2007CN02862
                                            IN 2007-CN2862
                          Α
                                20070907
                                                                    20076028
     US 20080100206
                                            US 2007-813040
                          A1
                                20080501
                                                                    20076028
PRIORITY APPLN. INFO.:
                                            JP 2004-380368
                                                                A 20042128
                                            WO 2005-JP23714
                                                                W 20052126
     Disclosed is an organic electroluminescent device wherein an organi thin film
     including a light-emitting layer is interposed between a cathode ath an
     anode. In this organic electroluminescent device, at least one lær of the
     organic thin film is formed by a wet process, and the residual solent in
     this layer is not more than the detection limit of temperature descrition
     spectroscopy (TDS: measured at 80°C) (namely, the measured partial
     pressure is not more than 1.0 x 10-12 Pa).
REFERENCE COUNT:
                         15
                               THERE ARE 15 CITED REFERENCES AVAILABLE OR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT
                       7429-90-5, Aluminum, uses
     2085-33-8, Alq3
                                                   50926-11-9, ITO
     76656-53-6
                164724-35-0 209980-53-0 312497-12-4
     894415-41-9
     RL: DEV (Device component use); USES (Uses)
        (organic electroluminescent device)
L11 ANSWER 21 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:
                         DOCUMENT NUMBER:
                         144:222330
TITLE:
                         Electroluminescent chrysene derivatives, and oganic
                         electroluminescent devices and displays comprisng
                         them in emission layers
INVENTOR(S):
                         Matsunami, Shigeyuki; Miyabayashi, Yoshihisa;
                         Ichimura, Mari; Tamura, Shinichiro
PATENT ASSIGNEE(S):
                         Sony Corp., Japan
SOURCE:
                         Jpn. Kokai Tokkyo Koho, 28 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
LANGUAGE:
                         Japanese
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
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                         _ _ _ _
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                                            _____
     JP 2006052324
                         A
                                20060223
                                            JP 2004-235124
                                                                    20048012
PRIORITY APPLN. INFO.:
                                            JP 2004-235124
                                                                    20048012
OTHER SOURCE(S):
                         MARPAT 144:222330
     Claimed are I [A1-24 = H, halo, OH, C£20 (substituted) carbonyl
     (ester), alkyl, alkenyl, etc.; R1-2 = C£30 (substituted) aryl,
     heterocycle; m, n = integer of 0-2; m + n = 1-4]. The compds. cambe
     included as electron-transport agents or hole-transport agents, andhe
     devices/displays show high emission efficiency and long service lix
IT
     76656-53-6 445256-77-9
                               851767-73-2
     RL: DEV (Device component use); MOA (Modifier or additive use); USE
     (Uses)
        (dopant; in electroluminescent chrysene derivs. for organic
        electroluminescent devices/displays)
IT
     875918-91-5P
     RL: DEV (Device component use); IMF (Industrial manufacture); TEM
     (Technical or engineered material use); PREP (Preparation); USES (Mes)
```

(electroluminescent; electroluminescent chrysene derivs. for orgnic electroluminescent devices/displays)

875918-92-6 875918-93-7 875918-94-8,

6,6':12',6''-Terchrysene 875918-95-9 875918-96-0 875918-97-1 RL: DEV (Device component use); TEM (Technical or engineered materal use); USES (Uses)

(electroluminescent; electroluminescent chrysene derivs. for oranic electroluminescent devices/displays)

L11 ANSWER 22 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:170087 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER: 144:222329

TITLE: Electroluminescent bichrysenes, and organic

electroluminescent devices and displays comprisng

them in emission layers

INVENTOR(S): Matsunami, Shigeyuki; Miyabayashi, Yoshihisa;

Ichimura, Mari; Tamura, Shinichiro

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

LANGUAGE:

Patent Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE -------------------JP 2006052323 Α 20060223 JP 2004-235123 20048012 PRIORITY APPLN. INFO.: JP 2004-235123 20048012

OTHER SOURCE(S): MARPAT 144:222329

Claimed are the bichrysenes I [A1-24 = H, halo, OH, C£20 (substituted) carbonyl (ester), alkyl, alkenyl, etc.]. The bichrysnes can be included as electron-transport agents or hole-transport agents, and the devices/displays show high emission efficiency and long servic@ife.

76656-53-6 445256-77-9 851767-73-2 IT

RL: DEV (Device component use); MOA (Modifier or additive use); USE (Uses)

(dopant; in electroluminescent bichrysenes for organic electroluminescent devices/displays)

875916-70-4P, 6,6'-Bichrysene 875916-73-7P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Mes) (electroluminescent; electroluminescent bichrysenes for organic electroluminescent devices/displays)

875916-72-6 875916-74-8 875916-75-9

875916-76-0 875916-77-1 875916-78-2 875916-79-3

RL: DEV (Device component use); TEM (Technical or engineered materail use); USES (Uses)

(electroluminescent; electroluminescent bichrysenes for organic electroluminescent devices/displays)

L11 ANSWER 23 OF 35 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1153554 HCAPLUS <<LOGINID::20090416>>

DOCUMENT NUMBER: 143:429803

Organic electroluminescent device INVENTOR(S): Funabashi, Masakazu

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 28 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

TITLE: